

C<sub>1</sub>  
Cont.

induced stomatal closing, of ABA-induced guard cell  $[Ca^{2+}]_{cyt}$  elevations and whole plant transpirational water loss during drought. Growth analyses with other plant hormones showed an ABA specificity of *abh1*. The *abh1* mutant is the first plant mutant shown to enhance signal-induced  $[Ca^{2+}]_{cyt}$  elevations. Calcium imaging data demonstrate that ABH1 modulates early ABA signal transduction events. Human and yeast nuclear CBCs function in pre-mRNA splicing (E. Izaurralde *et al.*, *Cell*, 78:657 (1994); J. D. Lewis *et al.*, *Nucleic Acids Res.*, 24:3332 (1996)) and affect the expression of a specific subset of genes in yeast (P. Fortes *et al.*, *Mol. Cell. Biol.*, 19:6543 (1999)). The nuclear CBC further regulates mRNA 3' end formation and RNA export in humans, and translation in yeast (E. Izaurralde *et al.*, *Nature*, 376:709 (1995); P. Fortes *et al.*, *Mol. Cell.*, 6:191 (2000)). Interestingly, the human nuclear CBC has recently been suggested to function as a target in growth factor and stress-activated signaling, regulating the expression of specific genes (K. F. Wilson *et al.*, *J. Biol. Chem.*, 274:4 166 (1999)). The discovery of *abh1* provides genetic evidence that a nuclear cap binding protein regulates ABA signaling in plants. Based on the mRNA cap binding activity ABH1 may regulate mRNA processing of early ABA signal transduction genes. Furthermore ABH1 modulates the strength of plant responses to ABA and therefore could provide a new control mechanism for manipulating the ABA responsiveness of crop plants during stress.--

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IN THE CLAIMS:

Please cancel claims 28-43 without prejudice to future revival.

Please add new claims 44-61:

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C<sub>2</sub>

44. (New) An isolated nucleic acid, comprising an expression cassette that comprises a promoter operably linked to a polynucleotide that is at least 70% identical to SEQ ID NO:1 or is a subsequence of at least 30 nucleotides of SEQ ID NO:1, wherein the nucleic acid causes decreased turgor pressure when expressed in a guard cell.